

Vol. 72, No. 6

JUNE, 1937

25 cents

GOOD HEALTH

ORGAN OF THE ARISTOCRACY OF HEALTH AND
DIGEST OF CURRENT HEALTH LITERATURE

Editor: JOHN HARVEY KELLOGG, M.D., LL.D., F.A.C.S.

Keep Your Face Up
The Aristocracy of Health
The Vitality Record Office
The Much Maligned Enema
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By the aid of a corps of able experts, the health literature of the world is each month critically surveyed, and such new facts as are germane and authentic are summarized and presented to GOOD HEALTH readers in comprehensive form.

GOOD HEALTH restricts its advertisements to products and commodities known to be wholesome and health-promoting. This policy excludes highly lucrative sources of revenue which other magazines enjoy and which are their chief support, so that the publication of GOOD HEALTH is not a source of pecuniary profit to anyone, but is a contribution to the health betterment movement of which it has been the mouthpiece for half a century.

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The gospel of good health which this journal teaches is so much needed everywhere, and by everybody, a million copies should be circulated every month. Send us a list of names of people likely to appreciate it and we will mail sample copies for 10 cents each.

PUBLISHERS.

GOOD HEALTH

Organ of the Aristocracy of Health and Digest of Current Health Literature

Edited by DR. JOHN HARVEY KELLOGG

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JUNE, 1937 — Vol. 72, No. 6

Published Monthly by The Good Health Publishing Company, Battle Creek, Mich.

Entered as second class matter at the Post Office at Battle Creek, Mich., under Act of March 3, 1879.

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Advertising Representative: Arthur C. Hurlburt, 319 Fairfield Avenue, Hartford, Conn.

SUBSCRIPTION PRICES

\$2.50 per year; single copy, 25 cents. Foreign subscriptions, \$3.00.

The Aristocracy of Health

Endowed by Mrs. Mary F. Henderson

by Dr. John Harvey Kellogg

SOME forty years ago, the late Mrs. Mary F. Henderson, a leader of society in Washington, D. C., and a woman of wealth and influence and a friend and adviser of presidents and members of Congress, through attending a lecture by the writer in Washington became interested in biologic living and race betterment. Mrs. Henderson was the wife of Senator John B. Henderson, the author of the Fourteenth Amendment, and was in close touch with foreign ambassadors whom she frequently entertained at banquets in her home. Mrs. Henderson became so thorough a convert to biologic ideas and ideals that she at once changed the character of her banquets, omitting wines and meats of all sorts. She became a teetotaler as well as a flesh abstainer and also discarded tea and coffee, and not only publicly announced her change but verified it by publicly emptying her casks and bottles filled with costly old wines with which her wine cellar was well stocked, in the presence of a great crowd of citizens who had gathered to see the sacrifice.

Mrs. Henderson remained consistent to her ideals to the day of her death five years ago, and in a will left to Battle Creek

College a handsome legacy, totaling with previous gifts several hundred thousand dollars, to be used for promoting race betterment, especially in the promotion of an Aristocracy of Health, the idea which she had pioneered in a work bearing the same title which she published more than thirty years ago.

The task of organizing a group of health-minded people to form the nucleus of the Aristocracy of Health was left to Battle Creek College, an institution conducted in affiliation with the Battle Creek Sanitarium, which is a continuation in more developed form of the Schools of Nursing, Home Economics and Physical Education for many years conducted by the Sanitarium.

The Organization

Purpose. The enrollment of intelligent health-minded persons who desire authentic and up-to-date information about health and are willing to cooperate in efforts to spread information about right living and race betterment.

Membership. There are three classes of members, *associate members, full members, and notable members.*

Each member will be required to sign an application for membership.

THE ARISTOCRACY OF HEALTH

Application for Membership

I believe in the ideals and principles of **BIOLOGIC LIVING** as being scientific and promotive of physical and mental health, efficiency and endurance, longevity, morality and Race Betterment and of human welfare, individual, national and racial.

Desiring to profit by a knowledge of the Rules for Right Living and to keep step with the progress due to new discoveries being made, I wish to become an

Associate Member of the Aristocracy of Health

and will cooperate with other members in spreading information about the work of the association, and in combating the use of alcohol, tobacco, and other injurious habit-forming drugs, and in promoting eugenics and other race betterment movements.

Name
Street and No.
City
State
Date

No Fees or Dues. The organization being well endowed, no fees of any sort are required of members. They are, however, expected to cooperate heartily

and actively in spreading among their friends and acquaintances the valuable information they receive by circulating literature and in such other ways as may be suggested and which they find feasible, such as the formation of local clubs, parlor health talks and readings, lectures, biologic banquets, dinners and picnics, health hikes, health exhibitions, health perfection contests, etc.

Research Laboratories. Well equipped laboratories for chemical, nutritional, physiologic and bacteriological research already in operation are actively cooperating with the association. Among these may be mentioned the Pavlov Laboratory of the Battle Creek Sanitarium, in charge of the eminent physiologist, Prof. W. N. Boldyreff, formerly assistant to the late Prof. Pavlov of Leningrad, Russia; the chemical laboratory of Battle Creek College, the food laboratories of The Battle Creek Food Company and the excellent nutrition laboratory carrying on researches by animal experimentation in charge of Dr. Thelma Porter, Professor of Physiology of Battle Creek College, an investigator of many years' experience; and physiological and bacteriological laboratories in charge of Drs. Roth, Roderick, Lewis and other experts of long experience.

The research work being done in these various laboratories will supply a constant fund of progressive information. To these various laboratories may be referred new questions which arise for solution. Through affiliation of the several laboratories with other laboratories in



Mrs. Mary F. Henderson

this and foreign countries, the association will be supplied with up-to-date information concerning all the progress being made the world over in the direction of health promotion and race betterment.

Information Bureau. A central bureau of information is already in operation at Battle Creek to which any member or associate member may address any question pertaining to health. Questions demanding a diagnosis or medical prescription will of course be referred to the questioner's family physician as it is not the purpose of the organization to practice medicine, but to promote health by a biologic or scientific mode of living.

The Biologic Code. A little manual embodying a code of Rules for Right Living is sent

gratis to every member, with the expectation that each recipient will carefully read the booklet and confidence that the suggestions made will be followed in whole or in large part with the certain knowledge that the more fully and circumspectly these simple, well-tested health rules are observed, the greater will be the improvement experienced in mental and physical efficiency and comfort.

Health Education. In localities where the number of members will warrant, local clubs will be organized and correspondence courses will be offered for health education and training in aristocratic methods of cookery, dietetics, posture, and other matters pertaining to biologic ways of living.

The *Good Health Magazine* has been selected as the organ of the society. In it will be found each month, reports of the work of the association, invaluable articles on practical health topics, editorials on current topics with comments and such a digest of health progress as is not to be found in any other publication.

Persons who desire to participate in the advantages and privileges enjoyed by becoming members of the Aristocracy may have their names enrolled by cutting out the attached blank application, signing it and mailing to the Aristocracy of Health, Battle Creek, Mich. Or, if preferred, send for an application blank.

If extra copies of the application blank are desired to enlist other persons as members, they may be had on request.



Why People Become Intoxicated

by Count Leo Tolstoy

III

IT IS ASSUMED that tobacco cheers one up, clarifies one's thoughts, attracts people toward itself like any other habit, without ever producing that effect of drowning the conscience which is recognized in the case of wine. But one need but look more attentively at the conditions in which a special necessity for smoking is manifested in order to become convinced that the intoxication by means of tobacco, like that by means of wine, acts upon the conscience, and that men consciously have recourse to this intoxication, especially when they need it for this purpose. If tobacco merely cheered one up and clarified one's thoughts, there would not be this passionate need of it, particularly in certain definite cases, and people would not say that they would prefer to be without bread than without tobacco, and would not often actually prefer smoking to food. . . .

I remember during the period of my smoking that I used to feel a special necessity for tobacco. This was always in such minutes when I was anxious not to remember what I did remember, when I wanted to forget, not to think. I am sitting alone, doing nothing, and I know that I must begin to work, but I do not feel like working. I smoke a cigaret and continue to sit. I

promised somebody to call on him at five o'clock, and I have stayed too long in another place; I recall that I am late, but I do not want to think of it—so I smoke. I am excited and I tell a man a lot of disagreeable things, and I know that I am doing wrong, and I see that it is time to stop, but I want to give vent to my excitability, and I smoke and continue to excite myself. I play cards and lose more than I intended to limit myself to—and I smoke. I have placed myself in an awkward situation, I have acted badly, have made a mistake, and I must recognize my situation in order that I may get out of it, but I do not wish to recognize it—so I accuse others, and I smoke. I write and am not quite satisfied with what I write. I ought to give it up but I want to finish writing what I have planned—I smoke. I quarrel and I see that my adversary and I do not understand and cannot understand each other; but I want to express my thoughts. I continue to talk and I smoke.

The peculiarity of tobacco as compared with other intoxicating substances, besides the ease with which one is intoxicated by it and besides its apparent harmlessness, consists also in its portativeness, so to speak, in the possibility of applying it to small, separate cases. To say

nothing of the fact that the use of opium, wine, hashish, is connected with certain appliances which one cannot always have, while one can always carry about tobacco and paper, and that the smoker of opium, the alcoholic, excite horror, while a tobacco smoker does not represent anything repulsive, the superiority of tobacco over other intoxicants is this, that the intoxication from opium, hashish, wine, covers all impressions and actions received and produced during a certain sufficiently long period of time, while the intoxication from tobacco may be directed to every separate occasion. You want to do what ought not to be done, so you smoke a cigaret, you become intoxicated to the extent you wish to be, in order that you may do what ought not to be done, and you are again fresh, and you can think and speak clearly; or you feel that you have done what ought not to be done—again a cigaret, and the unpleasant consciousness of a bad and awkward act is destroyed, and you can busy yourself with something else.

But, to say nothing of those individual cases in which every smoker has recourse to smoking, not as to a gratification of a habit and a pastime, but as to a means for drowning the conscience in the case of acts which

are to be committed or have already been committed—can one fail to observe that strict, definite interdependence between the manner of life of people and their bias for smoking?

When do boys begin to smoke? Almost always when they begin to lose their child innocence. Why can smokers stop smoking the moment they get into more moral conditions of life, and begin to smoke again the moment they fall into a corrupt sphere? Why do almost all gamblers smoke? Why do women who lead a regular mode of life smoke least of all women? Why do *all* prostitutes and insane persons smoke? Deducting what is due to habit, it is evident that smoking stands in a definite relation to the demand for drowning the conscience, and that it attains this aim.

The observation as to what extent smoking drowns the voice of conscience may be made on almost any smoker. Every smoker, in surrendering himself to his passion, forgets or neglects the very first demands of social life, which he demands from others and which he observes in all other cases, so long as his conscience is not drowned by tobacco. Every man of our medium degree of education regards it as impermissible, rude, and inhuman for his own pleasure to impair the quiet and the comfort, and much more the health, of other people. Nobody will permit himself to be noisy in a room in which people are sitting, yell, to let in cold, or hot

air, to commit acts which interfere with others or harm them. But out of one thousand smokers not one will feel any embarrassment at filling with foul air a room, the air of which non-smoking women and children breathe. Even though smokers usually ask the persons present, "Does it incommode you?" all know that these persons are supposed to answer, "Not in the least" (although it cannot be agreeable for a non-smoker to breathe the infected air and to find ill-smelling stubs in glasses, cups, plates, on candlesticks, or even in ash trays). But even if adult non-smokers were able to endure the tobacco, this can in no way be agreeable and useful to children, whose permission nobody asks. And yet honorable people, who are humane in every other respect, smoke in the presence of children, at dinner, in small rooms, infecting the air with the tobacco smoke, without feeling therewith the least scruples.

People used to say, and I used to say so, that smoking contributes to mental work. This is unquestionably so, if one considers the amount of mental work. A smoker, who therefore has ceased to value strictly or to weigh his thoughts, imagines that a mass of ideas has suddenly come to him. But this does not mean at all that he has acquired a mass of thoughts, but only that he has lost control over his thoughts.

When a man works, he always recognizes two beings in him-

self: one—the worker, the other—the one who puts a value on the work. The stricter the valuation, the slower and the better is the work, and vice versa. But if the valuator is under the influence of intoxication, there will be more work, but its quality will be lowered.

"If I do not smoke, I shall not be able to write. Thoughts do not come to me; I begin writing and I cannot go on," people generally say, and so did I say. What does this mean? Either that you have nothing to write about, or that what you wish to write about has not yet matured in your consciousness, but only begins to present itself dimly to you, and the appraising critic, who lives in you and is not intoxicated by tobacco, tells you so. If you did not smoke, you would give up what you have begun, and would wait for the time when what you are thinking about has become clear to you, or you would try to think out what dimly presents itself to you, or you would consider the objections that have arisen and would strain all your attention to elucidate your thoughts. But you light your cigaret, the critic within you is intoxicated, and the impediment to your work is removed: what to you, sober from tobacco, has seemed insignificant again presents itself as significant; what has seemed obscure no longer appears as such; the objections that arose before you have disappeared, and you continue to write, and write much and fast.

Nature's Defenses in Mouth and Nose

EUROPE has been visited by an epidemic of malignant diphtheria which has resisted even massive doses of antitoxin. Attention has thus been called to the defenses against diphtheria presented by the mouth. The *Journal of the American Medical Association* reports that Hermann Dold, of Tübingen, found that normal human saliva contains enzymic factors which will not only inhibit the multi-

plication of diphtheria bacilli in a test tube but often kill them in a few hours.

The presence of these "inhibins" in normal saliva has been confirmed by study with other bacterial species. It was found that hemolytic streptococci (those causing degeneration of the blood) were often destroyed in five or six hours, and if not killed, were almost always transformed into nonhemolytic

variants. Similar results were obtained with certain pneumococci. The effects of surgical antiseptics, mouth washes and smoking on this natural salivary immunity have not yet been studied.

Presumably identical "inhibins" have been demonstrated in normal nasal secretions; they were absent in the discharges of patients suffering from common colds.

The Much Maligned Enema Exonerated

by Dr. John Harvey Kellogg

THE ENEMA has been greatly abused by those who do not recommend its use and doubtless sometimes misused by those who commend it. It is the most maligned of all remedies and this notwithstanding the fact that it is one of the very oldest and most widely used of all natural remedies. Its use began in prehistoric times, long before the first line of history was written. It even antedates the oldest traditions. It has probably saved more lives and relieved more acute distress and agony than any other remedy known to man. It has so much practical common sense behind it that it is used by the most primitive of African tribes, who employ for the purpose a long horn with a hole in the tip or a hollow reed. Herodotus, the earliest historian, tells us that the ancients learned to make use of the enema by observing its use by the ibis, a bird that was worshipped by the ancient Egyptians.

Unfounded Prejudice

It is hard to understand how the widespread prejudice against this simple and sensible remedy could have gotten started. There is some ground for suspicion that the priests of olden time, who dispensed drugs and charms in addition to presiding over religious rites and ceremonies, may have discouraged the popular use of so simple and obviously practical a remedy as the enema, so as to

make the people depend upon them for bodily relief as well as for religious guidance and comfort, and it is even possible that the same commercial instinct may be behind some of the calumnies and the denunciations which are now so widely circulated against this innocent and most useful procedure. There can be no doubt that the business of the manufacturers of pills and mineral waters has been greatly increased by the apprehensions of injury from the use of the enema that have been planted in the public mind.

The Enema versus Laxatives

Certain it is that there are few, if any, forms of self medication that have done so much harm as the popular use of laxative and cathartic drugs and mineral waters. It is probable that more drugs of this sort are used than of all other medicines put together. Any possible injury that may ever have been done by the occasional or habitual use of the enema is infinitesimal compared to the immense harm done not only to the colon but to the entire intestinal tract, from stomach to rectum, by the habitual use of laxative drugs.

Colon Filth Dangerous

What could be more sensible or more reasonable than to wash the colon out when it is overfilled with stagnating alimentary

refuse. When the skin is dirty, we wash it with water. And what could be more unreasonable than putting into the mouth a drug to cure a trouble located twenty-five feet distant? The colon refuse to be removed is not in the mouth nor the stomach nor the small intestine, but at the extreme lower end of the digestive tube, which is thirty feet long. The enema applies the remedy where the offending substance *is*; the pill or other medicament applies it where it *is not*. When the basement floor needs scrubbing, the sensible housekeeper applies the soap and water where it is needed. She does not pour it out in the attic, from which it can only reach the basement by way of stairways, halls, dining room and kitchen, soiling mats, carpets and maybe furniture and bric-a-brac on the way! But this is the absurdly irrational method by which all drug laxatives work.

Laxatives Damage the Stomach

The first and most drastic effect of laxative drugs is upon the stomach because here they come in contact with the living tissues in their most concentrated form. As soon as a drug is swallowed, Nature begins to combat it by pouring out serum and mucus. The laxative effect is due to this effort of the body to get rid as quickly as possible

of something irritating and more or less poisonous. The relief of the colon is purely an incidental effect, and the bowel action is for the purpose of getting rid of the laxative because of the harm it is doing the whole alimentary tract.

Laxative Drugs Cause Duodenitis and Colitis

Continuous use of any laxative drug sooner or later results in great damage to the stomach and duodenum. The small intestine suffers less for the reason that many laxative drugs are in large part absorbed in the duodenum and upper part of the small intestine, thus protecting from injury the twenty-two feet of this most important and most delicate portion of the alimentary tract since here is done almost the entire work of digesting and absorbing the food. Both the stomach and the colon may be dispensed with without loss of life, but certain death results if half the small intestine is removed. For example, such active salts as sulphate of magnesia when swallowed do not pass directly to the rectum, but after absorption in the upper part of the intestine are excreted into the colon. The same effects are produced if the drug is injected hypodermatically and much more quickly and with a much smaller dose. The eminent German medical authority, Professor Carl von Noorden, called attention many years ago to the fact that the habitual use of mineral waters produces chronic colitis. Gastritis and duodenitis are produced at the same time and by the same cause and all drug laxatives produce the same sort of injury.

Colon Bath Harmless as a Mouth Wash

Washing the colon out with water is as simple and as harmless a measure as washing the hands and face, rinsing the mouth or taking a bath; in fact, one runs much less risk in taking an enema than in taking a general bath, for after a bath certain precautions are often necessary to avoid taking cold. No one ever heard of a person

taking a cold as the result of an enema. When very thirsty no one would hesitate to drink three or four glasses of water if necessary to appease his sense of thirst. Taking the same amount or a larger quantity of water by enema is simply drinking at the lower end of the alimentary tract instead of at the upper end. Physicians often employ this means of introducing water in fever cases when patients are unconscious or otherwise unable to swallow.

Less Danger from an Enema than from a Warm Bath

The usual objections to the use of the enema that have sometimes been put forward even by physicians, are almost wholly without scientific foundation. They are based solely on misapprehension and prejudice rather than observed facts. It is true the introduction of water into the colon by the enema is an artificial procedure; but many of the harmless things we do are wholly unnatural, such as shaving, cutting the hair, bathing, wearing clothes, living in houses, using artificial heat for warmth, cooking food, and riding in automobiles. It is true, of course, that some of the unnatural things we do, such as flying, for example, involve more or less hazard so that some precautions are necessary. This does not deter us, however, from traveling by air or taking a hot bath. When we take a hot bath, we avoid the risk of being scalded by the use of a thermometer, although it is possible to dispense with the latter as did Bridget, who when asked by her mistress how she regulated the temperature of the baby's bath replied, "When he turns red it's too hot; when he turns blue it's too cold." The enema is an internal bath, and the temperature and quantity must be regulated as in bathing any other part of the body or even in such ordinary service of the body as eating or drinking.

An Enema Does Not Dilate the Colon

The claim often made that the enema does damage by di-

lating the colon is equally baseless. Physiologists have demonstrated by experiments upon animals that only by the introduction of enormous quantities of liquid and after frequently repeated and long continued effort can the colon be enlarged by this mechanical means. When the colon contents are increased to such an extent as to produce distention, the colon reacts strongly and painfully, and expels its contents if not prevented from doing so by mechanical obstruction. In the colon the muscular sense, which when stimulated causes contraction, is very highly developed. The stimulation of this sense by bulkage is an important factor in normal bowel action. It is for this reason that physicians constantly prescribe for constipated patients the use of fruits, fresh vegetables and other foods which contain indigestible elements, chiefly cellulose, as bulkage. The colon needs to be distended to promote normal bowel action. The normal amount of gas found in the colon aids bowel action by its bulk.

Water the Simplest and Mildest form of Bulkage

When the colon contents are insufficient to stretch the bowel enough to cause evacuation, there is no simpler and more innocent method of increasing the bulk of the colon contents than the enema. Water, at proper temperature, is indeed an ideal method of stimulating bowel action in such a case because of its neutral character and cleansing and lubricating effect. Water absorbed from the colon is utilized just as is water absorbed from the stomach. This is clearly shown by the increased activity of the kidneys often noticed after an enema.

Colon Dilated by Residues and by Gas — the Enema Affords Relief

When persons who have used the enema frequently for a considerable length of time are found to be suffering from dilatation of the colon, this condition should not



Fig. 1



Fig. 2

be charged to the enema, but rather to the excessive gas formation, which has previously acted continuously, perhaps for many years. The effect of the enema in such cases is to lessen the evil effects of the chronic gas distention by emptying the colon and relieving it of unnatural strain. Certainly, no possible harm could result from giving the colon relief from the stretching effect of gas distention which in most cases is caused by chronic colitis, with spastic contraction of the distal colon; or possibly by adhesions resulting from extension of the infection to the outer covering of the intestines. Adhesions are also sometimes the result of surgical operations involving the abdominal cavity. Probably in most cases the redundancies of the colon often found in chronic constipation are congenital in their origin. In all cases of this sort the enema is the most rational and helpful of all means of combating intestinal dilatation because it is the most effective and harmless method of removing the intestinal contents whether solid, liquid or gaseous.

The Enema Not Habit-Forming But the Best Means of Curing Bad Colon Habits

The most frequent objection urged against the use of the

enema is the supposed danger of habit formation. The enema habit is held up as a great and imminent danger involved in the use of the enema otherwise than as an emergency measure. Most people and many physicians consider the frequent or daily use of the enema a very harmful, even hazardous, procedure. The writer has had opportunity to study this question very thoroughly during many years not only in many thousands of patients who have visited the Battle Creek Sanitarium, but in his own personal experience, having suffered very severely in early boyhood and for many subsequent years with chronic colitis.

At least nine-tenths of the more than 300,000 persons who have registered at the Battle Creek Sanitarium as patients have shown evidence of impaired colon function and probably not more than one per cent have been wholly free from injury from intestinal stasis and resulting putrefaction and absorption of putrefaction products.

During the first half of my sixty years' experience as Medical Director of the institution, every method recognized by scientific medicine indicated in cases of this sort was faithfully tried, but the results were usually far from satisfactory. This

was inevitably the case for the reason that most of our patients had been under the care of many physicians before coming to us and all of the accredited measures known had already been employed. Thoroughgoing regulation of the diet and physiotherapy in various forms, especially the use of the enema and the suppression of putrefaction and infection of the colon by change of the intestinal flora were the only means which had not been previously given a thorough trial. During the last thirty years, the use of the physiologic measures mentioned have been more and more thoroughly and systematically employed by methods which have been gradually improved, and with increasingly better results. Thus we have had unusually large opportunities for observing the effects of the enema. Numerous cases have been observed in which the enema had been used as a sole reliance for evacuation of the bowels during five to twenty years. In not a few of these cases, it has been most gratifying to find the patient reporting within two or three weeks after beginning treatment that the bowels were moving naturally two or three times daily and that enemas were no longer necessary.

The Enema Indispensable in Treatment of Colitis

In one case of chronic colitis with which the writer was thoroughly familiar, the patient had been entirely dependent upon the enema for more than twenty years.

The accompanying cuts are reproductions of roentgenograms of this colon before and after treatment. In this case, although the enema had been chiefly depended upon for emptying the colon for more than forty years and wholly so for twenty years, the colon after some weeks of treatment presented a very nearly normal appearance, as shown in Fig. 2. Evidently the cause of constipation in this case was the extremely spastic condition, shown

in Fig. 1, the result of colitis of more than sixty years' duration.

Clinical observation made in thousands of cases fully justifies the writer in saying that the enema is a rational and indispensable means for dealing with a large number of cases of constipation and intestinal stasis. It not only prevents the local and systemic injury which results from chronic intestinal stasis due to either infection or congenital or mechanical causes, but is an efficient and indispensable means of applying treatment to the diseased parts in cases of colitis and training functionally crippled colons and restoring them to normal activity.

In many cases in which the colon is organically crippled,

either congenitally or as a result of disease, the enema is the only efficient means by which the bowel may be emptied and kept free from putrefying residues. In many cases of this sort, and especially in cases in which obstruction is caused by spastic contractions of the descending colon, the result either of infection or of persistent perverse reflex nervous influence, medicinal laxatives have the effect to aggravate the condition and in many cases they increase the primary diseased conditions, and in certain cases render evacuation more difficult instead of aiding it by increasing the irritability of the intestine. In a succeeding paper the last statement will be verified by the presentation of a number of roentgenograms of individual cases.

June

And what is so rare as a day in June?
Then, if ever, come perfect days;
Then Heaven tries the earth if it be in tune,
And over it softly her warm ear lays:
Whether we look, or whether we listen,
We hear life murmur, or see it glisten;
Every clod feels a stir of might,
An instinct within it that reaches and towers,
And, groping blindly above it for light,
Climbs to a soul in grass and flowers;
The flush of life may well be seen
Thrilling back over hills and valleys;
The cowslip startles in meadows green,

The buttercup catches the sun in its chalice;
And there's never a leaf nor a blade too mean
To be some happy creature's palace;
The little bird sits at his door in the sun,
Atilt like a blossom among the leaves,
And lets his illumined being o'errun
With the deluge of summer it receives;
His mate feels the eggs beneath her wings,
And the heart in her dumb breast flutters and sings;
He sings to the wide world, and she to her nest,—
In the nice ear of Nature which song is the best?

—James Russell Lowell.

The Vitality Record Office

An Important New Health Project Is Launched by Professor Irving Fisher of Yale University

PROFESSOR FISHER was chiefly responsible for the establishment of the Life Extension Institute, which has been the means of extending the lives of many thousands of persons prominent in politics, business and civil affairs, and has succeeded in inducing the great life insurance associations to become efficiently active in life conservation as well as life insurance. The Vitality Record Office is a natural complement to the Life Extension organization because chiefly educational in its aims.

Professor Fisher has greatly extended the field of economics in which he is an expert of international renown by demonstrating that the conservation and extension of human life and increase of life expectation by biologic living should receive first attention from both the legislative and administrative departments of federal and state governments, and hence are objectives of first importance.

The readers of GOOD HEALTH will be interested in the following excerpts from an address by Professor Irving Fisher of Yale University, before the patients of the Battle Creek Sanitarium, both because of his interesting account of his personal experience in biologic living and of his project for the establishment of a Vitality Record Office:

How I Found Health through Living Biologically

The health transformation which I owe to this institution I have seldom spoken about. I should speak about it here, where so many others have had a similar experience at the Sanitarium.

I had my first rude awakening on health in 1898, just as I had received my appointment as full Professor at Yale. It suddenly seemed as though my career would be stopped by death. I found I had tuberculosis. My father had died of tuberculosis before that and my mother was very much distressed when she knew that I had it because she was sure that it would be the end of me. It nearly was.

I left New Haven in the fall of 1898. First I went to Saranac Lake in New York, where the great Dr. Trudeau had his patients, which was very near a place now called Trudeau, one of the best sanitariums for tuberculosis in the world. After staying the winter there, I went to Colorado Springs, and after finding it was too high for Mrs. Fisher, we went to the Pacific Coast and my symptoms disappeared in seven months after I had tuberculosis, but not my ill health. I remained away three years from my work and even

then did not feel fit to go back to work, but did so because, as I expressed it, "I would rather wear out than rust out." I saw so many people living a purely invalid life in Santa Barbara, I became very much disgusted with the idea. I thought I would rather go back and die in harness than merely to play golf and do nothing useful, so back I went, and it took me three more years in New Haven to get my health back.

I think it is very likely I would not have gotten my health back if I had not come to this institution. In 1904, I heard of this institution. It was by reading a book by Mrs. Henderson called "The Aristocracy of Health." She was a great admirer of Dr. Kellogg. The big picture which you see just as you go to the elevator is a present from her to the Sanitarium.

I got in touch with her and then wrote to Dr. Kellogg and afterward came out here. I was very much prejudiced against the place, but soon discovered that it was founded on scientific principles. So I have known this institution and Dr. Kellogg for thirty-three years. Scarcely a year has passed of those thirty-three years that I have not stopped

over a train at least to see Dr. Kellogg if for no other reason than to shake hands with him and to thank him for what he has done for me. If I have done anything in this world in those thirty-three years, it is due more to this institution than any other influence in my life. I know that there are many others who will give this same sort of testimony.

It was from him that I learned principles which had not been properly taught by other physicians under whom I had been — I am not saying anything against any of them, as some of them are great men and some of their principles were quite correct so far as tuberculosis itself was concerned and fresh air as a sovereign remedy, but in regard to the fundamentals of physiological or biological living, I found new light here. In my opinion there is no one on this planet today who knows more about this subject than Dr. Kellogg, and no institution which has done more good than this institution, and I should deplore greatly if the institution should change its policies so that the good that it has done would not continue to the end of time.

I have tried since my own transformation in health to take my part in the health movement in many ways. My own transformation has been very great. Within two weeks after I met Dr. Kellogg and got certain suggestions from him, I was able to do twice as much work as when I first met him, and my working power has increased almost continuously from that day to this, and I have had no illnesses in that time except one which was really indirectly due to an accident. With that exception I have improved right along.

On February 27th I passed my seventieth birthday. I was broken down with tuberculosis at the age of thirty-one. I had a bad case, as I have already indicated, perhaps, and I think there are very few people who went through that experience at that age have lived to tell the tale at the age of seventy. I did not myself expect to reach this age,

and for that reason among others I have hitherto refrained from citing myself as an example, for I have noticed so often that invalids and ex-invalids who become enthusiastic over certain régimes very often damage rather than help the cause over which they are so enthusiastic because soon after they tell what perfect health they have, they pass out, and, knowing a good deal about statistics and especially death rates of those who have had tuberculosis, generally about three times the death rate of average people, I was particularly cautious lest I should hurt rather than help the cause. But I feel now that having reached the allotted three score years and ten in spite of this handicap, that whatever happens to me in the future, I have arrived in a sense and that I have a right to boast a little bit about what has happened; but really I do not feel in boasting that I am doing so personally but rather on behalf of the principles which have given me back my health. To all appearances and through medical examinations and any way by which one may judge, I have grown younger rather than older since I was thirty-one.

The day before yesterday I met a physician here who was a physician here seventeen years ago and who in the meantime has been away. He had not seen me in that period, and when I shook hands with him he said, "Why, you look younger than you did seventeen years ago." Whereupon I stood up and clicked my heels together in German military fashion and made a bow and asked him if he really meant it. He said he did. So many people have told me that, and, as I said, medical examinations and otherwise have confirmed it so I am inclined almost to believe it myself. At any rate whether I am younger or older, I am alive and I would not have been if it had not been for what I have told you.

I can now work more than I ever could in my life at my professional work and physically I

can do more work than I could in any of the periods since I was thirty-one years of age. My blood pressure is that of a boy of fifteen years of age — it was taken yesterday — and my hemoglobin is one hundred per cent. There is nothing I know definitely imperiling my future, although it is quite possible, of course, that there are things which I am not aware of; therefore I am not claiming anything as to the future, but I am merely telling you of the transformation of health which has been developed in the past.

I do not think that I am the most remarkable case on record by any means. I have seen other great health transformations more important. I met a Canadian physician not long ago and, if his story is true and unexaggerated, his is a far more remarkable case than mine. He says that at the age of fifty he was broken down with arthritis and heart disease. He was so nearly blind that he could not count his fingers in front of his face. He had a blood pressure of 200 and several other disabilities. He changed his habits over night, adopting what is substantially the Battle Creek régime, although he had never been to Battle Creek. He had heard about it and heard about others who had similar ideas and principles.

One day he was called up by a lady who said she wanted to consult him about her baby, and he replied, "Madam, I am sorry I can not come to your home because I am sick myself, but if you will bring the baby to my office I will do the best I can." She did so and he soon discovered she had really given the baby up and thought it was going to die and was only half listening to what he said. It made him quite angry and he turned to her and said, "Madam, you have no right to take such an attitude. Your baby will grow like a green bay tree if you will give it a little touch of Nature. Natural living will do it."

(Continued on page 188)

FROM THE EDITOR'S PEN

Keep Your Face Up

WHEN the face droops the shoulders droop, the stomach droops, the colon droops, the whole body slumps, endurance lessens, pep lessens, and mind and body are less efficient. When a person is "down in the mouth," it is because the cheek muscles are relaxed and pulled down by gravitation. This naturally lowers the angles of the mouth, producing an expression which is commonly associated with a sad or gloomy state of mind.

The important significance of this downcast expression is the fact that it indicates a condition which pertains not to the face only, but to the entire body. Even in young persons, in whom the fallen face or downcast expression is usually due to psychic rather than to physical causes, the facial expression is associated with really serious bodily conditions, among which are excessive activity of certain glands which produce internal secretions. These so-called hormones, when produced in normal quantities are highly necessary to health, efficiency and general well being. When produced in excess, they produce serious disturbances in the bodily mechanisms and become causes of grave physical and even mental disease.

How Depressing Emotions Cause Disease

Hormones are very potent substances which produce powerful effects even when present only in exceedingly minute quantities. For example, adrenalin, the product of small glands attached to the kidneys, is highly necessary to maintain the normal activity of the heart and other organs involved in the circulation of the blood and the efficiency of the muscles. It regulates the activity of the thyroid gland, the liver, the pancreas and the glands which make the gastric and intestinal

juices, peristalsis or bowel action, and certain phases of respiration, and so has a most important relation to mental and nervous activity. It is indeed an activator of the entire body.

Worry, anxiety, anger, fear and other depressing emotions may cause the adrenal glands to throw into the blood such an unusual quantity of adrenalin as to seriously disturb almost every bodily function, accelerating some, depressing others and even causing complete cessation or reversal of a normal activity.

Dr. Cannon, watching the process of digestion in a cat's stomach by means of the X-ray, saw digestion stop completely when he pinched the cat's tail. The stomach started work again only after the cat began to purr. A woman eating her dinner, vomited it as a sudden result of reverse peristaltic action when she heard bad news about her baby.

The Scientific Explanation of Mind Cures

It is through the injurious effect of these mysterious hormones that people are made ill by purely psychic causes. Such people recover when relieved of the injurious effects of the hormone poisoning, when the depressing mental influence is withdrawn, and good cheer and happiness take its place. This is the explanation of the remarkable cures which sometimes result from the efforts of Christian Scientists, faith healers, mind curists, magnetic healers and various forms of psychotherapy. When the depressing and harmful influence of the hormone disturbers is removed, the healing forces of the body, which are always doing the best they can under the circumstances, with the obstacles in their way removed, are able to restore normal conditions which before they could not do.

Why the Face Falls in Old Age

In older persons, especially those nearing or past middle age, a permanent falling of the face may and generally does result from a degenerative process involving especially the yellow elastic tissue of the body. It is this tissue which gives to the skin its rubber-like elasticity. This yellow elastic, as well as other varieties of connective tissue, is not active in the sense in which muscles, nerve cells, glands and white blood cells are active in the body, but constitutes a framework over which the delicate living protoplasmic structures of the body are supported and spread out in thin membranes like rubber sheets to serve as bands and wrappings for holding parts together and maintaining contours while affording opportunity for change of form by increase and decrease of volume and through modifications of form. It is this rubber-like quality of the elastic connective tissue which permits free movements of the limbs and more or less change in form and position of nearly all the bodily organs. The walls of the blood vessels consist largely of this yellow connective tissue, which is an important aid to the circulation of the blood. As each pulse wave comes along, the arteries stretch and lengthen, but instantly return to their normal size without the expenditure of any energy through the contraction of muscles, an enormous saving of energy.

The ligamentum nuchæ of the ox, a large bundle of yellow elastic tissue which runs along the upper border of the neck of the animal, relieves the ox of the labor of sustaining the weight of its head and pulling it back in place when lowered to the ground in feeding. The ox makes no effort in holding its head up, but is obliged to push it down to reach the grass. In like manner

the elasticity of the skin of the face is a factor in maintaining the roundness of the cheeks.

Poisons Destroy the Yellow Elastic Tissue

The circulation of poisons in the body causes the degeneration of the yellow elastic tissue not only in the skin, but throughout the body. It is this that gives rise to several of the characteristics of senility. As the elasticity of the skin of the face diminishes, the weight of the cheeks causes them to droop more and more as the degenerative changes advances. In like manner the walls of the blood vessels become less and less elastic so that they enlarge and lengthen and in so doing become more prominent and crooked. This accounts for the snake-like or corkscrew appearance of the temporal arteries often seen in aged persons. In such cases the blood pressure is often raised because of the increased labor required of the heart to move the greater mass of blood that the dilated arteries contain.

Can Face Drop Be Prevented?

From the above it is very evident that it is a matter of great importance that the face should be kept straight or at least that it should be kept up. The face as well as the heart must be kept in the right place. A question of tremendous importance is whether or not the degenerative process that causes falling of the face may be arrested or whether it may be even possible to restore in whole or in part the degenerated tissues to their normal elastic condition, thus lifting the face.

Surgical Face Lifting Valueless

Of course lifting the face by means of plastic surgery, as is sometimes done by beauty specialists, produces only local and temporary effects. Lifting the face will not lift a fallen stomach nor change the caliber or contour of a dilated and crooked artery, but fortunately there are

rational and effective means by which falling of the face may be combated with a sufficient degree of success to make the effort well worth while. Keeping in mind the fact already noted that there are two very definite causes of falling of the face, one mental or psychic, the other organic, through the destructive influence of toxins circulating in the blood, it is evident that both of these exciting causes of facial prolapse must be combated, and the success with which this may be done is often most gratifying.

Lifting the Face by Suppressing Poisons

The nervous mechanism which pulls the cheeks and the corners of the mouth down when an expression of gloom spreads over the face may be set to work in the opposite direction, lifting the cheeks and pulling the mouth angles toward the ears and illuminating the face with a smile. The face lifting effect of optimism and cheerful surroundings is unmistakable, but to this must be added for definite and permanent results, in cases of chronic face prolapse, measures for the suppression of the inflow of poisons into the blood stream. Such poisons as alcohol, tobacco, tea and coffee must of course be tabooed. The mustard, pepper, pepper sauce, ginger and hot sauces of various sorts with which our foods are often poisoned, must also be discarded.

In Remote Ages Germs Were Harmless

The most important of all is the suppression of the great flood of poisons which is always to be found pouring into the blood stream from the colon in cases of marked and permanent falling of the face. Metchnikoff declared the colon germs which produce these poisons to be the chief cause of old age, and the geologists have demonstrated that ages ago when the life span of both man and lower animals is on good grounds believed to have been far greater than at the present time, the great army

of germs which are now the most dangerous of all enemies to human health and longevity were powerless to do him harm. In other words, animals were then not subject to germ diseases. The eminent geologists of the University of Illinois have shown that the evidences of germ diseases of the bones, which are very frequent in later geologic periods, are altogether absent in the older strata of the earth's crust.

The Colon Filter

Evidently it is reasonable to believe that at some time in the remote history of man's career, he stood on a high level of superiority above his germ enemies, and even still we find him supplied with means of protection which seem under normal conditions to afford means of perfect and complete defense. Even the colon, that Pandora's box of maladies and miseries, never becomes a source of damage to the body through the virulent bacteria which are incubated in it and the highly potent poisons they produce so long as its mucous membrane remains intact, for the normal mucous membrane, like the normal intact skin, is a filter which affords a complete barrier against the most intensely active organic poisons, such as the venom of a rattlesnake, so long as it is perfectly intact. Were it not for this fact, millions of persons who are going about carrying in their colons enough histamin, a common colon poison, to kill a regiment of men, would succumb instantly. But when this protection is lost as the result of congestion and the loss of the protective layer of epithelium, which constitutes the barrier against germs and germ poisons, or the deeper damage to the protecting barricade which exists in chronic colitis, with pronounced abrasions and ulceration, the situation is wholly changed. With the defending barrier broken down, germs and germ poisons flood into the blood. Ample evidence of this is found in the streams of bacteria which are filtered from the

blood by the liver and poured out in the bile. The frequent infection of the liver, bladder and other structures with the colon bacillus through migration from the colon into the blood vessels and thence into the urinary passages, is another example of the same sort.

The colon germs, streptococci or pus-forming germs and numerous other germs which when virulent are most deadly, multiply with enormous rapidity and are likely at any time to develop such virulence as to enable them to attack and invade the blood stream and to damage every organ in the body.

The Metchnikoff Idea

We must fight and destroy these death-dealing organisms if we entertain the hope of avoiding their destructive effects. Fortunately we are now possessed of means by which this may be done. One of Metchnikoff's assistants gave him the idea by suggesting that it might be possible to eliminate these destructive bacteria by introducing into the intestinal tract harmless germs which produce no poisons but only lactic acid, the acid of sour milk, apparently as harmless as the common food acids, the citric acid of lemons and grapefruit and the malic acid of apples and cherries.

Metchnikoff's Mistake

Metchnikoff tried the Bulgarian sour milk germ found in yogourth, but his success was only partial. The Bulgarian germ is accustomed to an out-of-door life. It has to have an abundant supply of oxygen and does soon after it is swallowed, penetrating the interior of the body no further than the extreme upper part of the small intestine. The colon being the great battle ground against our germ enemies, Metchnikoff's effort failed because his germ warriors all died of suffocation before they reached the enemies' trenches.

Doctor Tissier's Wonderful Discovery

Later, Tissier and other of Metchnikoff's assistants discovered in the stools of nursing infants a lactic acid-forming germ closely resembling the Bulgarian bacillus which appears after the new-born infant begins to nurse and quickly drives out the swarming millions of colon bacilli and other pernicious germs which invade the colon of the infant within a few hours after birth. Within a week or two every enemy germ has disappeared. This wonderful bacterial Hercules, known as *Lactobacillus acidophilus*, has cleared the Augean stables. The colon is wholly free from all unfriendly germs and in the writer's belief would remain so if the diet of the infant after weaning and through all its after life were as normal and wholesome as that with which Nature provides not only to human infants but every mammal nursing.

Origin of the Protective Germs

The infant gets these protective germs from its mother along with its mother's milk, and in the mother's milk finds lactose, a wonderful sugar found nowhere except in milk, a food exactly adapted to the needs of the protective germ *acidophilus*, whereby it is made to grow with such prodigious rapidity that within a few days after it first appears every harmful species of germ is driven out of the colon. Not one can survive in its presence. Evidently kind Nature intended that man, the lord of creation, should be able to maintain a good defense against his enemies instead of becoming not only the victim but the food of worms.

Pioneer Successful Attempt in America to Change the Intestinal Flora

The first practical attempt to change the flora by the use of Tissier's germ, called *bifidus* by

him and now known as *bifidus acidophilus*, or simply *acidophilus*, was made in this country at the Battle Creek Sanitarium, where large use had been made previously of Metchnikoff's *Lacto-Bacilline*, a culture of the Bulgarian germ. The failure of this ferment to accomplish all that was expected of it led the writer to further and extended search, to assist in which he retained the services of Professor Tissier of the Pasteur Institute as consulting bacteriologist, and obtained from him in 1912 a culture of the bacillus, the first brought into this country. The culture was first used by enema and later orally as well, and with such splendid results that many thousands of gallons, nearly a hundred thousand in all, were employed in treating various sorts of gastric and nervous disorders, especially constipation.

Discovery of a New and Sturdier Type of Lactobacillus Acidophilus, Soy Acidophilus

Another series of experiments made under the writer's direction in the laboratories of Battle Creek College led to the discovery of a new and more sturdy type of *acidophilus* by growing it in milk prepared from the soy bean. By the use of a culture of this organism, known as soy *acidophilus* milk, and proper regulation of the diet, the poison-forming germs may be so thoroughly eliminated from the intestine that the blood poisoning which leads to degeneration of the yellow elastic tissue as well as other degenerative changes may be arrested. The elimination of these poisons removes from the liver and kidneys such a great burden of unnecessary work, an enormous handicap to vital activity, that the natural healing powers of the body are enabled to set up reparative activities whereby the damage caused by germ poisons may be to a greater or less extent repaired. By the use of sun bathing, exercise, a vitamin-rich diet and other restorative measures, a veritable rejuvenat-

ing process is developed in all the tissues.

The cultivation of youth through the recovery of some of the fund of reserve which has been lost, gradually obliterates the marks of senility and brings back the clearness of complexion and the rotundity and smoothness of features which pertain to youth. Wrinkles are smoothed out, fallen cheeks are gradually lifted as the elasticity of the facial skin is renewed, the tongue clears, lost appetite and relish for food return, the step is more elastic, the power of endurance with mental clearness and ability to concentrate the mind are increased, and this rejuvenating process may by meticulous effort be prolonged not only for weeks and months, but years and with increasing success.

How Lifting the Face Lifts the Whole Body

And by lifting the face the whole being is lifted. The whole body is benefited. Improvement in the facial appearance is a true indication of the universal improvement which has taken place throughout the body. Clean blood is building finer tissues, stronger and more enduring muscles and clearer brain and keener mind, more sensitive and quicker acting nerves. Instead of the perpetual weariness, inept and half alive feeling which has made life a trying experience, almost burdensome, there has come a sense of vigor and fitness, of energy and zest in living and preparedness to meet whatever must be encountered, and a sense of adequacy and masterfulness that seems like entering upon a new era of existence, the natural and certain reward for biologic or natural living.

Every reader of GOOD HEALTH is invited to undergo the delightful experience of face lifting, thereby rendering himself eligible to become a pioneer member of the Aristocracy of Health.

Substitutes for Salt

THE WIDE USE of table salt among civilized people has led to the general acceptance of the erroneous idea that the addition of salt to ordinary food is necessary for health. Only a little more than half a century ago, standard works on physiology emphasized the importance of salt as an article of food, and told stories about persons being eaten alive by worms when for punishment compelled to live on a saltless dietary. When a medical student, the writer heard a learned professor of physiology make statements of this sort which are now known to be wholly without foundation in fact. Modern scientific research has demonstrated the fact that ordinary food furnishes sufficient chlorid of sodium to supply all the normal needs of the body. Even cattle and antelope, once supposed to require salt to keep them in health, are now known to be independent of this chemical compound.

Before the settlement of the western prairie states by the dry farmers, the great herds of cattle that thrived upon the ranches were never given salt. Many grazing animals that ranged over the western plains, flourished for thousands of years without a taste of salt.

In regions where salt lakes exist, antelope visit salt springs, especially in the spring, to rid themselves of intestinal parasites with which they become infested while feeding on twigs and bark during the winter season, when deep snows in the valleys compel them to live on the hillsides. And countless millions of antelope have thrived during the long ages in Central Africa. Salt was unknown until introduced by explorers in comparatively recent times, and is now admitted by eminent physiologists to be an unnecessary addition to natural foodstuffs, while the use of half an ounce a day, as shown by the amount found present in the average urine, is altogether excessive and harmful. The only real ex-

cuse for the use of sodium chlorid is apparently the fact that it for most people improves the flavor of certain foodstuffs, particularly soups and watery vegetables.

Man, however, seems to be the only animal that has acquired such an appetite for salt as to use it in injurious quantities. The ancient Romans sometimes paid the wages of their soldiers in salt. This appears to be the origin of the word *salary*, derived from the Latin, *salarium*.

Modern research has shown not only that the amount of salt used by the average man is highly excessive and injurious, but that in certain diseases it is necessary to greatly curtail, or even entirely eliminate its use. This is particularly true in cases of various diseases of the kidneys, some forms of skin disease, high blood pressure, and fevers, especially in pneumonia and diseases in which salt disappears from the urine. In many cases of dropsy, the elimination of salt from the diet causes a rapid elimination of the surplus water with which the tissues are distended.

The practice of using substitutes consisting of a combination of chemical potassium and magnesium lactate (*Medizinische Klinik*) is found to be harmful because of the onerous load thrown upon the kidneys by the intake of the large quantity of minerals not naturally found in the foods.

Instead of using chemical substitutes for salt in connection with a saltless dietary, the food should be made appetizing by the use of foodstuffs rich in flavor. Fruits are especially valuable for this purpose. Ordinary soups prepared in the usual way have little to commend them to the discriminating palate, but fruit soups as well as fruit may be well relished without salt. Leeks, onions, and celery are flavors which may be advantageously used in the seasoning of soups and other vegetable foods. The idea that onions are harmful to the kidneys has been shown to be erroneous.

A DIGEST OF HEALTH PROGRESS

Dilute Saline Liquids Necessary in Severe Heat Prostration

THAT a weak solution of salt is the best preventive and cure of heat prostration was shown by experiences in building the great Boulder Dam. The details were presented by Dr. Richard O. Schofield in an address which appeared in *California and Western Medicine*. When construction was begun in 1931, conditions were very trying to the workmen. They were poorly housed, had primitive fare, the drinking water was not palatable nor was it cooled, and recreation facilities were lacking. The summer heat had an average daily maximum of 119 degrees, with an average mean daily temperature of 106. About one hundred and fifty cases of heat prostration occurred. The usual symptoms were pallor, nausea, vomiting, muscle cramps, diarrhea and unconsciousness. There were seventeen deaths.

By the next summer, artificially-cooled buildings had been erected, the food was much improved, and a cooled movie theater was provided. Cool drinking water was supplied in many spots. The temperature was not so high as in 1931; there were only seven cases of heat prostration and no deaths. Research at Boulder City showed that at high temperatures there was a great loss of chlorids as well as of water from the body. The chlorids were evidently lost by the tissues, since they remained at normal level in the blood. A healthy subject is not able to retain water in the body without sufficient salt to give the tissue fluids a salinity of 9 parts in 1000.

In the summer of 1934, the daily average maximum temperature was 112. The workers were urged to drink water freely and to add a little salt to it. The number of prostrations was

thirteen, of which four were severe. It was found that some of the patients had a high fever, perhaps above 105 degrees. These were at once wrapped in wet sheets and packed in ice. Another group had a subnormal temperature, and the body was cold and clammy. Warmth was applied. All cases were supplied with water and small amounts of salt.

Without knowing the scientific reason for it, captains of British vessels in the Red Sea have for many years put a little salt in the drinking water of their crews. They probably learned this from the Arabs, who had practiced it from time immemorial.

Rickets Still a Widespread Disorder

A LAG ALWAYS exists between a medical discovery and its adoption by the public at large. Hence it is that rickets is still so common years after the demonstration that it can be prevented by the taking of vitamin D. The incidence is said to be on the average about thirty per cent in the southern states and about fifty per cent in the north, with some areas in densely populated cities showing over eighty per cent. Exposure to sunlight will supply this vitamin; lacking that, the children must receive the factor in food.

D is the one vitamin which is deficient in the ordinary diet of fruits and vegetables. Adding the vitamins to milk has been found the most feasible method of assuring a good supply. Dr. H. T. Scott, of the Wisconsin Alumni Research Foundation, in the *Archives of Physical Therapy, X-ray, Radium*, explains that milk can be fortified with vitamin D in four ways. (1) An extract may be added directly to the milk; (2) the cows may be irradiated with ultraviolet generators; (3) they may be fed with irradiated dry yeast,

or the milk may be directly irradiated.

Vitamin D milk is now sold in many cities. It tastes like other milk and is not affected by pasteurization. An expectant or nursing mother should have a supply of D, together with abundant calcium and phosphorus, to meet the needs of the child. If she does not, Nature sees to it that these minerals are taken from the mother's teeth and bones. If rickets develops in the child, it may result in bow legs, knock-knees or pelvic deformity. Not only the temporary teeth but the permanent ones are affected by the lack of vitamin D in infancy. It has been shown that the permanent teeth begin their development several months before the child is born. Dental decay is much lessened if proper food minerals and vitamin D are liberally supplied.

The Wisconsin Foundation owns the patents for irradiating milk and grants the right to sell such milk on certain conditions, one of which is that the price shall not be more than one cent a quart higher than that of the ordinary article. Vitamin D is also a preventive of osteomalacia, a disease to which adults are subject; this causes softening of the bones and unless checked is fatal.

The High Altitude Disease

THE RARITY of the air in high altitudes with its poverty in oxygen may cause a variety of symptoms. They are called Monge's disease, after Dr. Carlos Monge, of Lima, Peru, who first established the existence of this malady. (*Archives of Internal Medicine*.) People living at an elevation of from 10,000 to 16,000 feet may be subject to it. Adjustment to the condition may be slowly accomplished. The Spanish conquerors who went to the mines in Potosi, Bolivia, at an alti-

tude of 14,000 feet, had no offspring for fifty-eight years.

In subacute mountain sickness, says Dr. Monge, the patient becomes fatigued mentally and physically. His skin turns blue on slight exertion. There is a tendency toward sleepiness, which may be interrupted by a sensation of smothering. Digestion is slow, constipation appears. Loss of weight is generally noted. Later there may be vomiting, dizziness and clouding of vision. The hemoglobin and red blood cells are increased. Such a patient may live a long time. He is completely cured when he descends to sea level.

In the severe form of the disease the resting patient becomes florid and turns purple at the least effort. In a white person the skin becomes blue, the face being almost black. The tongue is swollen, the hands are enlarged. Walking is slow and difficult. The patient is sometimes in a state of drowsiness, interested in nothing, not even food; or he may be in a coma for two or three hours. Bronchitis may be present, or congestion of the lungs. With the progress of the disease comes cardiac insufficiency. There may be severe pain in various parts of the body. Unless the person goes to a lower level, he may die from hemorrhage, pulmonary thrombosis, broncho-pneumonia or progressive cardiac insufficiency.

Danger from "Dry Ice"

CHILDREN in New York City and perhaps in other cities have found a new toy — "dry ice." This substance, which is really carbon dioxide snow, is coming into wide use. Small boys and girls obtained some of it in a candy store or from an ice cream vender, put it in their mouths and blew off "steam." Some of them were burned slightly. But one seven-year old boy put a piece about as large as a grape in his mouth and instead of blowing, swallowed it. He choked, got blue and fainted. His mother took

him to the Mount Sinai Hospital.

His throat swelled up so rapidly that a bronchoscope had to be inserted at once. Tracheotomy was performed and in thirteen days the boy returned home cured. But for the prompt medical intervention, the result might have been fatal.

Benefits of Tonsillectomy

THE FREEDOM with which operations for the removal of tonsils and adenoids are performed is sometimes criticized. Dr. William H. Turnley (*Laryngoscope*) tells of the benefits of this procedure, basing his conclusions on 76,000 cases. His patients ranged in age from six months to seventy-two years; there were six deaths, none of them from hemorrhage. Minor discomforts were sometimes complained of after the operation, such as dry throat, bad taste in the mouth, a slight speech defect lasting a short while and bronchial colds instead of the former head colds.

Children under the age of two were not subjected to operation unless there was a history of repeated colds and sore throat with enlarged glands of the neck, inflammation of the middle ear, etc. In such patients the adenoids were removed and occasionally the tonsils also. In the series 3,172 persons were operated on because they complained of rheumatism-painful joints, bones, nerves, muscles and fascia. After six years eighty-three per cent of these were improved or cured, twelve per cent showed no betterment, while five per cent were worse. Where there was no improvement, some other focus of infection was present or there was some other complication. The younger the patient and the shorter the duration of the rheumatism, the better the results.

In a series of 1,000 patients with valvular heart lesions, no deaths occurred. "The removal of tonsils lessens the incidence of sore throat about ninety per cent for the reason that sore

throat is fundamentally tonsillitis." Nonspecific chronic laryngitis is greatly benefited. Quinsy cannot develop unless there is a piece of tonsil tissue left. Removal of adenoids thoroughly performed will reduce the cases of inflammation of the middle ear in children ninety-five per cent. In adults it will greatly relieve tubal catarrh but earache is less likely to be influenced.

Some cases of iritis are benefited by tonsillectomy and chronic conjunctivitis is often cured, but optic neuritis is less frequently helped. Sinus infections are improved in a general way. Children who have a systemic rundown condition, as evidenced by backwardness in school, are benefited mentally and physically when their tonsils and adenoids are removed. Another effect is that children's diseases, such as diphtheria and whooping cough, run a milder course.

Tuberculosis of the lung has shown complete calcification after a few months following an adenoid and tonsil operation. Both children and adults with asthma are occasionally improved.

Vitamin B and High-Tone Deafness

EVEN a moderate deficiency in vitamins may lead to numerous manifestations of disease. The effect on eighth nerve high-tone deafness is considered by Dr. Grant Selfridge in the *Annals of Otology, Rhinology and Laryngology*. He pleads for the value of hearing tests as a possible aid in general diagnosis. Degeneration of the eighth nerve begins at about the same period in life as do presbyopia, cardiovascular and other degenerative conditions. High-tone loss is usually present in the fourth decade and becomes worse after that. It may, however, appear much earlier.

Acute infections may be the cause, but Dr. Selfridge finds that deficiency states may be to blame in certain cases. He believes that optimum nutrition,

begun early in life and continued throughout, can delay the progress of eighth nerve degeneration. Even after the fifth decade of life it is possible to ameliorate the condition of an individual's hearing, provided the areas of voice perception are not hopelessly damaged.

In a series of cases of chronic progressive deafness, especially otosclerosis, as well as those showing loss of high tones, it was found that the vitamin intake had been as follows: A, in fifty per cent low, others, fair; B, C and D, all low; G, fifty per cent fair, the rest normal. It has been learned that in B deficiency there may be local accumulation of lactic acid in various parts of the central nervous system. Dr. Selfridge is convinced that this is the cause of a majority of the cases of degeneration of the eighth nerve, especially with loss of high tones. Groups of animals on diets deficient in vitamin B complex do not respond to the stimuli of certain sounds, especially high, shrill whistles.

Dr. Selfridge found improvement in hearing in various patients after the administration of rice bran B complex. He believes further that partial deficiency states play a definite part in certain diseases of the nose and throat, as well as of the ear.

Vitamin C Promotes Healing of Wounds

IT IS BELIEVED by Doctors Thomas H. Lanman and Theodore H. Ingalls, of the Harvard Medical School (*Annals of Surgery*), that while actual scurvy is rare, there are many cases of a lack of vitamin C in which there is a mild form of the disease although no symptoms of it exist except those which are revealed only at autopsy.

They had a surgical case, a child only a few weeks old, in which the wound opened spontaneously. The patient died and the evidence of scurvy was thus disclosed. Tests of a number of babies in the Infants' Hospital,

Boston, showed that even those which had been fed an adequate amount of vitamin C had an average of only seventy-three per cent of a normal supply of it in the blood plasma; those which had a history of poor vitamin C nutrition had an average of only twenty-two per cent.

An experiment was then conducted with twenty guinea pigs, half of which received a very restricted amount of vitamin C. At the end of fifteen days all were operated on in exactly the same way. The controls which had been fed a perfect diet healed normally, there being a plentiful deposition of collagen by the tenth day. In the others the collagen was very scanty after thirty days and healing was unsatisfactory.

Open Air for Children with Pneumonia

SOME STRIKING facts about the healing effects of fresh air are given by Dr. H. L. Wallace in the *British Medical Journal*. He deals only with pneumonia in children but intimates that somewhat similar results might be expected with adults. His observations cover five years and are concerned with 300 consecutive cases, comparison being made with 275 controls. All the patients were in the Royal Edinburgh Hospital for Sick Children.

In one ward the sufferers from pneumonia were immediately on admission placed on the windward side of the room beside a widely opened window, so that the cold air could blow directly on the face. This was in exact contradiction to the common advice of protection from draughts. Of course the children were warmly clad. There was no change in this arrangement, day or night, summer or winter, with the one exception of fog. The treatment was continued until the temperature fell and remained at normal.

Absolutely no ill effects were noted in any case. When the window had to be closed temporarily, the child was likely to

be fretful and restless, but almost immediately fell into peaceful slumber when the fresh air was allowed to blow again. Sedative drugs were rarely needed to induce sleep or to allay restlessness, and stimulants were seldom given. The effect in improved appetite was remarkable and certainly aided recovery, as did the withholding of medicines.

In the other ward the patients admitted during the cold months were not as a rule subjected to the fresh air regime, but were treated by such measures as oxygen administration, giving of powerful stimulants and the inhalation of air moistened with steam. Even in summer the children were protected from draughts, and those under two years of age were never exposed to the open air. Patients had often to be coaxed to eat.

In group A the mortality was 11.6 per cent, and in the controls, 21.5. One objection to the open-air plan was that it made the ward at times very cold for inmates who were greatly debilitated. In a home, this would not be the case. Figures had not yet been compiled as to the duration of the fever and the incidence of complications.

Disease from Swimming in Polluted Waters

MANY of the streams of this country still serve to carry off sewage. Dr. Dennis Sullivan, deputy health officer of Jersey City, N. J., declares that the Hudson River is a stream of liquid filth. Water supplies are of course not drawn from such sources but there is danger in bathing in them. At Camp Dix, in the fall of 1933, there were 711 rejections of prospective CCC boys on account of inflammation of the middle ear. The total of such cases for a year was 923. In the fall camp there was much conjunctivitis, both diseases being more prevalent than in the spring. A little investigation revealed that the in-

fections came from bathing in polluted waters.

The health authorities of New Hampshire called attention to a case of typhoid fever due to swimming in the Ammonoosuc River. This does not run in an industrial region, but summer hotels discharge their sewage into it. When signs were put up by the sanitary officials warning of the danger of bathing in the stream, they were surreptitiously removed, presumably as bad advertising. Purification of the river would be a good move from a business angle.

Real Value of Fever Therapy

THE YOUNGEST member of the physiotherapy family has already won a firm place for itself in medical science. An International Conference on Fever Therapy was held in New York City; two hundred delegates were present, a number of them from foreign countries. It was made clear that this treatment is not a cure-all but that it holds great promise in the handling of a considerable variety of infections. One report was made of twenty-two out of twenty-five boys and girls with St. Vitus dance (chorea) being relieved of their irregular, jerky movements. They received four eight-hour treatments in a chamber in which the temperature ranged from 103½ to 104½ degrees.

Dr. Clarence Neymann, of the Northwestern University Medical School, Chicago, told of five of his cases which recovered from St. Vitus dance. The signatures were shown of a girl in Dayton, Ohio, who had this same trouble. With each treatment her writing grew less jerky until after the fifth one it became perfectly normal.

Doctors Eugene E. Simmons and F. Lowell Dunn, of the University of Nebraska College of Medicine, reported that fever therapy reduces symptomatic activity and probably shortens the duration of rheumatic fever. Neuritis and shingles were also

benefited. Professor Charles Laubry and associates, of Paris, found that angina pectoris, which is often extremely painful, might be helped by short wave electrical treatments across the heart. They had fifty-five patients; in forty per cent of these the results were very good and in twenty per cent, fair. The night attacks disappeared, the capacity for physical effort increased and many were able to go back to work. Some required further treatment after a few months.

Physicians from Brussels, Paris and Cincinnati told of employing fever therapy as a preventive of certain forms of blindness, particularly those due to venereal disease. At the Ford Hospital, Detroit, good results were obtained on dogs suffering from experimental tuberculosis. In one group four out of eight recovered; in another two out of seven.

Among the diseases in which some benefits were noted were meningitis, acute, non-specific infectious arthritis, rheumatic carditis and endocarditis, acute rheumatic fever, neuritis pain relief, St. Vitus dance and other diseases of children.

A message was received from Dr. Julius Wagner von Jauregg, of Vienna, who recently celebrated his eightieth birthday. He is the father of fever therapy. Acting on the knowledge that fever is the attempt of Nature to burn out invading bacteria, he induced malaria in some of his patients with general paresis. Considerable success was attained and the remedy was employed by scientists all over the world. One objection to it was in the difficulty of getting a supply of mosquitoes which could be depended on to implant malaria germs. Another was the fact that malaria was a harmful disease in itself and had later to be cured.

It was found possible to increase the body temperature by external heat and thus to secure the same effects in destroying infections. Some of the various mechanisms employed were shown at the New York confer-

ence. The inventors of two of them received the decoration of the French Legion of Honor at the gathering. They were Charles F. Kettering, vice president of the General Motors Company, and Dr. Willis R. Whitney, formerly of the General Electric Company. In all forms of the treatment, the patient's body is in a chamber, his head being outside. In the Kettering apparatus the heat is produced electrically, moisture being maintained at the desired figure. The inventor has given his device to several institutions and has also supplied funds for research. In the Whitney machine, the fever is induced by short waves of electricity.

Dr. Wagner von Jauregg has also been a benefactor to the human race by suggesting a method for giving iodine to people on a large scale. There was formerly a great deal of goiter and cretinism in Switzerland and scientists discovered that this was because of lack of iodine in the foods grown there. The remedy was of course to administer this substance but it would be difficult to induce many persons to take it regularly. So the Viennese doctor advised that table salt be impregnated with it, one milligram to a kilogram of salt. Thus the population would take the iodine without any bother. The results were very favorable and the plan has been widely adopted in this and other countries. Lack of iodine exists only in regions distant from the seashore.

Iron Protects from Sunburn

PEOPLE differ in their ability to expose their bodies to sunshine without deleterious effects. Some tan gradually while others with an equal stay in the rays become red and blistered. Bryan Leighton tells in *New Health*, the journal of which Sir Arbuthnot Lane is editor, that this susceptibility may be due to lack of iron in the tissues. That the sensitive person may have a normal hemoglobin is no disproof of this, for

while the blood has a normal content of iron, the tissues may be lacking in it. The blood is a greedy part of the body. If there is a shortage in iron, chlorids or calcium, the blood takes up the largest share of it and lets the tissues get along as best they may.

It was learned through experiments performed in California that persons with sensitive skins were improved by the administration of iron. A group of fair-skinned individuals was selected who blistered and peeled after a brief exposure to the sun. All had a normal hemoglobin. Accurate tests were made to learn how brief an application of ultra-violet rays was needed to produce redness and inflammation. After the subjects had taken large doses of iron for a month, they could stand ten times as much radiation as previously without any untoward effects.

Some sun-sensitive persons rub themselves with oil or pomade to prevent burning. This limits the benefit from the exposure, for the ultra-violet rays are in part filtered off. Sun bathing stimulates the metabolism and thus increases appetite and the assimilation of food.

Copper Builds Up Hemoglobin

THE GREAT VALUE of copper in increasing the hemoglobin of the blood was shown by tests conducted by J. L. McGhee, of Emory University (*Journal of Laboratory and Clinical Medicine*). His subjects were 140 men and women living in a small village and having the same sources of food and water. Each received milk containing one milligram of copper daily. At the end of eight weeks, gains of hemoglobin of from five to twenty-six per cent had been made by 138 of the group. Two had not been affected. No iron was given save that in the ordinary food.

The intake of fresh vegetables in April and May might be responsible in part for the change; but another series of similar

tests were made in the fall and the average gain of hemoglobin was thirteen per cent. In the spring the average gain was fourteen per cent.

Smallpox Due to Neglect

FROM 5,000 to 50,000 cases of smallpox still occur in this country every year. They are entirely due to the carelessness of the people. A medical student who takes his four years of training in a city with good vaccination protection, will probably never see a case of this disease. The United States lags behind other nations in this important particular. Dr. J. P. Leake, medical director, United States Public Health Service, writing in *Science Service*, says that every child should be vaccinated within a few weeks of birth, when the effects are mildest. Then there should be re-vaccination when the school age is reached. After that, the intervals may be as long as five to twenty years. If this plan is followed, the person need never have a sore arm.

Before vaccination was generally adopted, smallpox was so common that if a man was not pitted by it, this fact was an important factor of identification if he was wanted by the police.

Seashore Benefits for Children

CONVALESCENT children have long been sent to the seashore and have profited by their stay. The reasons for this improvement have been studied by Dr. Otto Kestner and are presented in the *British Medical Journal*. He observed a number of children in institutions on the German shore of the North Sea. Pale, weakly patients at first could not tolerate short sea baths even in August. This was because their capillaries had partly lost their responsiveness, and thus acted slowly in regulating the temperature of the body.

But gradually the circulatory reactions improved and chil-

dren who had felt terribly cold and had cried at their first bath, could play comfortably in the open air, naked in stormy weather. Incidentally it has been shown that persons with contracted blood vessels find their blood pressure reduced after a sea bath.

The cool air and continued breezes deepened the respiration of the children and changed the form of the chest. Exposure to bright sunshine raised the hemoglobin of anemic little ones. At first the convalescents rested or slept indoors two or three hours after dinner, and played on the beach only in fair weather. But later they were from the beginning kept out of doors for many hours even in winter, and for half an hour twice daily without clothing. They enjoyed this in the snow. In fact the doctors found that their patients made their best gains in the cold weather, although the proportion of ultra-violet rays in summer and winter was discovered to be 330 to 1.

When children and adults were exposed out of doors the oxygen consumption was higher in the sunshine than in the shade (.5 to 1.1 per cent). A rise could be observed even if only the face and hands were reached by the sun's rays.

Boys six to eight years old were first kept for ten to twelve days in a hospital in Hamburg on a fixed diet. The excretion of nitrogen exactly balanced the intake. But with precisely the same food at the seashore, there was a daily retention of from .6 to 1 gram of nitrogen, equivalent to 400 to 600 grams of new living tissue. The circumference of arms and legs increased by the growth of the muscles; the girth of the abdomen decreased. Gastric secretion was improved at the seashore both for children and adults.

As a rule, healthy, vigorous persons have slight reactions to differences in climate. This is because a full measure of adaptability is a symptom of perfect health.

Healthful Recipes

CREAM OF CRECY SOUP

3 medium-sized carrots ½ cup cream
2 cups milk 1 slice onion
1 tbsp. flour 1 bay leaf
1 tsp. salt

Wash, scrape and slice the carrots; cook in a small amount of boiling, salted water. Steep the bay leaf and onion in the milk in a double boiler for fifteen minutes. Remove the onion and bay leaf and thicken with flour rubbed smooth with a little of the cold milk reserved for that purpose. Put the carrots through a colander and add, together with the water in which the carrots have been cooked, to the thickened milk. Add the cream and reheat. Parsley may be added.

ARMENIAN SCALLOPED EGGPLANT

1 large eggplant 1 cup bread
½ cup sliced or crumbs
chopped onion 1½ cups drained
¾ tsp. powdered tomatoes
cloves 2 tbsps. butter or
Salt oil

Chopped parsley

Cut eggplant into slices one-half to one inch thick. Peel and put into a large quantity of cold water with a handful of salt. Soak one hour, then cook in boiling salted water about one-half hour, or until tender. Drain. Prepare the buttered crumbs. Mix onion, cloves, salt, and the crumbs. Sprinkle mixture in the bottom of baking dish and between layers and on top of eggplant. Add the tomato, sprinkle with parsley and cover with remainder of crumbs. Cover and bake one-half hour or more.

SPINACH NUT RING

3 cups cooked Salt
spinach ¾ cup walnuts or
3 eggs pecans
½ cup bread 2 tbsps. butter
crumbs 1 tbsp. Savita

Chop the spinach; add the beaten eggs, bread crumbs and chopped nuts. Dissolve the

Savita in the melted butter and add to the mixture. Season with salt. Turn into an oiled ring mold and bake in oven at 375° F. about thirty minutes, or until firm. Turn out upon a platter. Fill the center with small buttered potatoes, and place a ring of buttered, whole carrots around the outside. Serve the spinach with lemon or any desired sauce.

LIMA BEANS IN CHEESE SAUCE

2 cups cooked ½ tsp. salt
lima beans 1½ cups Cheese
(green or dry) Sauce
½ cup pimento 2 tbsps. butter
(minced)
½ cup bread crumbs

Place the beans and pimento in a buttered baking dish and cover with the Cheese Sauce. Butter the bread crumbs and sprinkle over the top. Bake in a moderate oven about thirty minutes.

APRICOT SANDWICHES

¾ cup dried ¼ tsp. cinnamon
apricots 1 tbsp. lemon
½ cup sugar juice

Wash and soak the apricots over night. Cook until tender. Put through a colander and add cinnamon, sugar and lemon juice. Cook again until the mixture is thick, stirring constantly. Do not let it burn. Remove from the fire and cool. Cut bread in thin slices, butter slightly and spread with the apricot mixture. Press two slices together and cut into fancy shapes.

PRUNE AND PEANUT BUTTER SANDWICH FILLING

1 cup peanut ¼ cup honey or
butter corn syrup
1 pound prunes

Wash and soak the prunes over night in sufficient water to cover. In the morning remove the seeds and cook until soft in

the water in which they were soaked, and until most of the water is evaporated. Put through a sieve, add the peanut butter and honey or syrup. If the filling is not used immediately, heat to boiling, put in jelly glasses and cover with paraffin.

SAVITA AND CREAM CHEESE SANDWICHES

1 tbsp. Savita 1 pkg. cream cheese
3 leaves lettuce 12 thin slices bread
6 tbsps. butter

Cream the cheese and Savita together and spread on thin slices of whole wheat bread. Place a lettuce leaf between the slices.

PINEAPPLE AND STRAWBERRY SALAD

2 cups diced 1 cup straw-
pineapple berries
¾ cup Golden Salad Dressing

Use fresh or canned pineapple. Cut the pineapple into small pieces and mix with the Golden Dressing. Just before serving cut the strawberries into halves and add to the salad.

GOLDEN DRESSING

¼ cup pineapple, ¾ cup sugar
apple, or other ¼ cup lemon
light colored juice
fruit juice 2 eggs

Beat the eggs sufficiently to blend the yolk and the white, but not until foamy. Add the fruit juices and the sugar. Cook in a double boiler, stirring constantly until thickened. Set in cold water to cool.

BEAN SALAD

1 cup kidney beans ¾ cup celery
1 hard-cooked egg 2 tbsps. olives
1 tsp. salt 1 tbsp. chopped
½ cup boiled onion
dressing ¼ tsp. paprika

Wash and dice celery. Chop olives and onion and dice egg. Have ingredients cold and mix. Serve on garnished plates.

THE HEALTH QUESTION BOX

Constipation — Butter and Cream in Liver Disease

— Leukoderma

E. B., New York, asks: 1. I am suffering from severe constipation and am making use of Kaba but am not relieved. I take a cold sitz bath daily for 10 minutes at 70 degrees F. I have been wearing an abdominal supporter but discontinued the use of it because it gave me discomfort.

2. I have symptoms of gall-bladder and liver disease. Examination by a physician last year showed my liver to be much enlarged. To what degree is it necessary for me to restrict the use of butter and cream?

3. What can be done for the relief of leukoderma?

Answer.—1. Kaba is an excellent remedy for constipation. It is particularly valuable because it may be used for an indefinite time without injury, but of course there is no panacea for any disease. It is often necessary to use other means in combination with it. First of all, the quantity should be increased to one or two dessert-spoonfuls if necessary at each meal. Its use may be supplemented by the use of Paramels, a form of mineral oil which is solid at ordinary temperatures. In many cases it is necessary to add bran.

Hemorrhoids doubtless result from straining at stool. This should be avoided. The quantity of bran and other bulkage should be increased until the effect desired is obtained. Bleeding hemorrhoids may usually be relieved by a few days' use of a powder consisting of equal parts of calomel and starch. The powder should be applied to the hemorrhoids after thorough cleansing following bowel movement. An irritable condition of the rectum is generally relieved by the injection of a salve consisting of equal parts of calomel and carbolated vaseline.

2. No doubt you are suffering from chronic infection of the duodenum and of the colon. For relief of this the best remedy is change of the intestinal flora. This requires the suppression of meats of all kinds and the use of a biologic diet, that is, from which all food products capable of undergoing putrefaction are excluded. You should discard eggs as well as meat. Cream and butter may be used in moderation, say an ounce of cream and a half ounce of butter at each meal. The intestinal flora should be changed by the use of soy acidophilus milk, which should be taken in quantities of a pint and a half to two pints daily. Lacto - Dextrin should also be used in quantities of one to two large dessert-spoonfuls at each meal.

In addition the colon should be thoroughly cleansed every day. It should be made free from residues by repeated enemas. A good means of determining when the colon is free is to take a couple of 5 grain capsules of carmin. This will color the stools red. When after repeated enemas the carmin color practically disappears, this fact indicates that the colon has been cleared of the residues of the meal with which the carmin was taken. When the flora is changed, the stools will cease to be putrid and will have very little odor.

A further measure of importance when the duodenum and liver are involved is the application of heat two or three times a day. A fomentation may be used or diathermy or some form of radiant heat, or light may be employed for ten or fifteen minutes. The application of heat should be as intensive as can be borne without too great pain or injury to the skin. The moist abdominal bandage worn at night is an excellent remedy for this condition, but if it is found to be objectionable, the moist bandage

may be left off or reduced to a small area and a dry towel with the usual coverings employed instead.

3. This is a condition in which the skin loses its natural pigment, giving the skin a peculiar spotted appearance. The white spots are particularly conspicuous when the skin on which they develop is brown or black. These spots frequently occur upon the face, though they may appear upon any part of the body.

Leukoderma is regarded as a nervous disorder. Dr. Combe of Switzerland considered intestinal toxemia as the cause of this disease.

Stomach and Bowel Trouble

M. B., Minnesota, asks: I am suffering from colon and stomach trouble. This bad stomach has effected my muscles in the back of my neck and causes so much headache. After each meal the muscles tighten up in the back of my neck and head and then a headache follows. I have so much gas and constipation most of the time. I am now using an herb tablet, Golden Seal, for the stomach, and Calumet Laxative for the bowels. They help some but do not help the muscles any.

Answer. — The above symptoms clearly indicate a systemic poisoning, doubtless due to toxins absorbed from the colon. A change of the intestinal flora by a nonputrefactive diet and care to cleanse the colon thoroughly every day by enemas, would probably relieve your suffering. The pain at the back of the neck may be temporarily relieved by applications of fomentations, cloths wrung out of hot water.

Body Odors

R. J., California, asks: A woman, about 70, operator of an apartment house,

has recently been ill, and since recovery, has developed what I call an "old age odor." The one apartment with which I am familiar, has just been renovated and is to all outward appearances immaculate, yet the odor pervades the whole apartment, the outer halls, the bedding, towels, etc. Is such a condition due to any personal uncleanness or is it deep seated? Will it finally disappear or does it remain permanently? Is there any hazard to the health of those unaffected, in living in such environment? Is there anything one can do to overcome the odor in one's own apartment?

Answer.—The chief source of offensive body odors is a neglected colon. The undigested remnants of food when retained in the colon for more than twenty-four hours, undergo the same putrefactive and fermentative changes that would take place in the same materials under the same conditions of warmth and moisture outside the body. This is the cause of the usual highly offensive character of the fecal discharges. In young persons, the delay of food residues in the colon is not likely to be so great as in the case of persons advanced in years. When a person because of old age finds his muscles becoming soft, flabby and feeble, the muscles of the colon, which are active in evacuation of the bowels, undergo similar changes and likewise become weak and inefficient, and in consequence, unless preventive measures are used, food remnants may remain in the colon for several days, or even two or three weeks, and under such circumstances, very advanced putrefaction develops. This condition exists in a large proportion of elderly persons, and is doubtless in most cases the chief cause of what might be termed the "senile bouquet" to which our correspondent refers. Of course, in an individual case, there may be one or more factors, such as neglect of personal cleanliness, leakage of urine, bad

teeth, etc. Body odors are not only a nuisance, they are unwholesome. Thorough ventilation would doubtless improve the situation, but of course the cause should be removed. An ozonizer might be a help. Among excellent preventive measures should be mentioned first of all change of the intestinal flora by increasing the activity of the colon; that is, washing it out daily by a properly administered enema, a non-putrefactive diet, which means the exclusion of meats of all kinds, fish, flesh and fowl, and in some cases the exclusion of eggs. Milk should be freely used, especially buttermilk. Soy acidophilus milk is of great service in such cases, also Lacto-Dextrin used freely, a large tablespoonful at each meal. The colon should be cleansed with an enema consisting of equal parts of buttermilk and water. Soy acidophilus buttermilk is best because it not only cleanses the colon thoroughly but implants the protective lactic acid-forming bacteria which prevents putrefaction. Water drinking is very important. Elderly people often neglect to drink water as freely as necessary to enable the eliminative organs to remove the poisons generated by the body. It is to be remembered also that in aged persons, the poison-destroying functions of the body become impaired, the kidneys fail to eliminate the poisons as rapidly as they are formed, the liver fails to destroy poisons with sufficient rapidity to get the blood clean. The whole body becomes tainted by the bad smelling products developed in the colon. Various aromatic poisons, such as indol, skatol and pyrrol develop and are eliminated through the breath and the perspiration as well as through the urine. A warm soap and water bath two or three times a week, taken at bedtime, will be a wise precaution. Most important of all is emptying the colon thoroughly by an enema at night. If a single enema is not sufficient, it should be repeated, and several times if necessary, but the addition of a pint of buttermilk and the juice

of one or two lemons, should suffice to secure thorough evacuation.

Cure for Tobacco Habit

G. S., Ohio, asks: How can a person quit the chewing tobacco habit? I read your GOOD HEALTH magazine and notice quite a few articles on smoking and chewing but you don't seem to explain the remedy or cure for them outside of will power. I can't seem to exert much will power probably because my system is saturated with poisons. I am also depressed, fatigued, have sweats and feel miserable in the morning. I am mentally and physically sick and very nervous most of the time. Will hot baths, swimming exercise, etc., help me?

Answer. — Mark Twain discovered the best remedy for the tobacco habit. He said, "The way to stop smoking is to stop wanting to smoke." The same philosophy applies to chewing. Sometimes a small sip of a solution of nitrate of silver, two grains to the ounce of water, will destroy the taste for tobacco. Some persons are able to substitute gum for tobacco. Gum-chewing is not beneficial and is perhaps to some degree injurious by overworking the salivary glands but it is better to chew almost anything else than tobacco.

Fingernails

L. M. G., Minnesota, asks: What causes the finger nails to peel or scale? Is there something I can do to prevent this condition?

Answer.—The trouble may be simply malnutrition or possibly you may be suffering from a parasitic infection. You should consult a good skin specialist. The application of ultra-violet rays to the hands and nails will often secure improvement in such a case. Sun bathing and biologic living will prove beneficial if the cause is malnutrition. Follow the diet suggestions given in answer to R. J. above.

The Vitality Record Office

(Continued from page 175)

The lady, annoyed by his sharp rebuke, looked at him for a moment sharply. He was all bent over and evidently quite as sick as the baby. She said, "Well, Doctor, at what age does that advice cease to apply?" Her retort startled him. It kept him awake all night. He made up his mind he would try to do for himself what he asked this woman to do for her baby. So he revolutionized his habits of living.

Now, twenty-eight years later, he can read the finest type without glasses instead of being blind, his arthritis has gone entirely, and instead of having heart disease, he runs sometimes five miles without stopping. He says that he devotes five hours a day to his health, but because he is in such good condition he does not need to sleep as long as other people have to sleep off their poisons, and his work being his pleasure he does not take any recreation, so that he really does more work in the course of a day than he used to do and than most people do.

The Vitality Record Office

In order to gather convincing statistics with which to prove the great advantage of biologic living in conserving life and promoting efficiency as well as to render service to the individuals who may be contacted, Professor Fisher has devised a highly ingenious method for conducting a health survey through what he terms a Vitality Record Office, concerning which he says:

"I want two sets of facts to emerge from this Vitality Record Office. One is such histories as I have just given, so the public can see what health transformations have been brought about by a suitable change in habits of living. The other is more important for people who think, although they will not mean so much to people who

do not think, that is, to get statistics."

Those who may be interested in this highly important enterprise may get further information by addressing Professor Irving Fisher, 460 Prospect Street, New Haven, Connecticut.

Maeterlinck, on a Fleshless Diet

IN ONE of his masterly works Maeterlinck wrote as follows concerning a fleshless diet:

It was only yesterday that man learned that he had probably erred hitherto in the choice of his nourishment . . . that a little fruit or milk, a few vegetables, farinaceous substances — now the mere accessories of the too plentiful repast he works so hard to provide . . . are amply sufficient to maintain the ardor of the finest and mightiest life. It must be admitted that of the objections urged against vegetarianism, not one can withstand a loyal and scrupulous inquiry. I for my part can affirm that those whom I have known to submit themselves to this regimen have found its result to be improved or restored health, marked addition to strength and the acquisition by the mind of a clearness, brightness, well-being, such as might follow the release from some secular, loathsome, detestable dungeon. Were the belief one day to become general that man could dispense with flesh food, there would ensue not only a great economic revolution, but a moral improvement as well.

Glasses as a Decoration

THERE are still people who object to wearing glasses on account of the supposed detriment to the appearance. But this prejudice is dying out, according to Dr. Adolph O. Pfingst, noted ophthalmologist of Louisville (*Kentucky Medical Journal*). Indeed, it is now realized that glasses frequently improve the looks by adding a

touch of dignity and distinction. This change of attitude has come about by the offering of a greater variety of frames. Thus, a brunette may select dark frames and blondes those of gold or silver; large persons may have large frames with heavy rims, while a girl of slight figure may prefer small lenses with no rims or very light ones.

It is pertinent to note in connection with this that the first use of glasses was not as an aid to vision but for religious and ornamental purposes and as an emblem of caste. This was in China at the time of Confucius, about 500 B. C. The principle of magnification by lenses was discovered by Roger Bacon in the thirteenth century. The use of spectacles was a later development. Benjamin Franklin invented the bifocal lens, which has since been much improved.

Many cases of headache, insomnia and various nervous phenomena are relieved by properly fitted glasses.

A good many fashionable men in Europe wear monocles. This is solely for appearance, says Dr. Pfingst, for he can conceive of no indication for the use of a unilateral glass for optical purposes.—S.

Arctic Explorers Reject Smokers

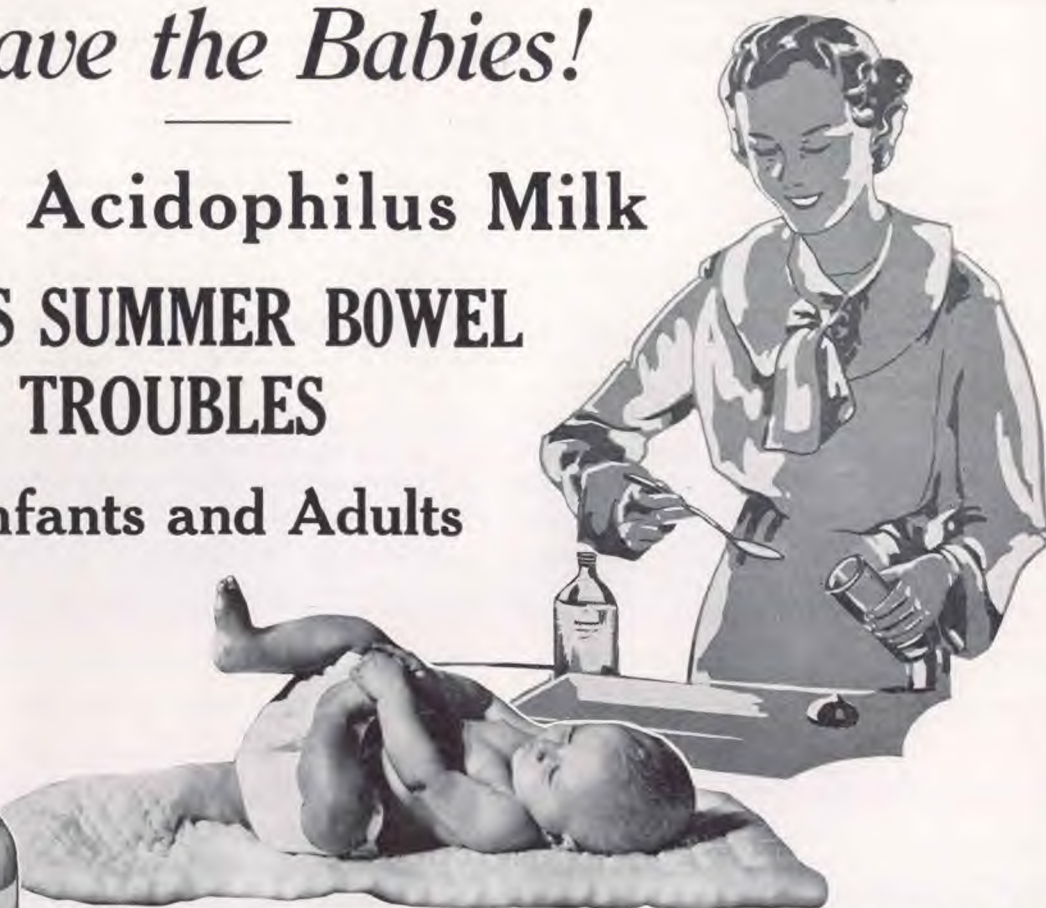
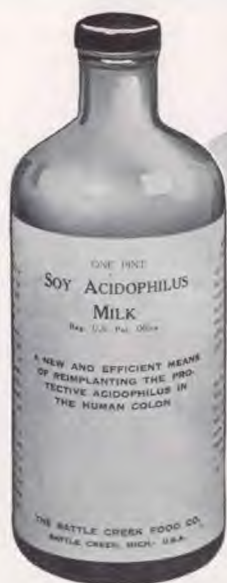
IT HAS USUALLY been my custom, and will always be hereafter, to require tobacco users to stop its use either before leaving the home camp or at the time of starting.—Vilhjalmur Stefansson, *"The Friendly Arctic."*

I have always selected men for my parties who used neither tobacco nor spirits . . . Tobacco is objectionable in polar work. It affects the wind endurance of a man, particularly in low temperature, adds an extra and entirely unnecessary article to the outfit, vitiates the atmosphere of tent or igloo, and when the supply gives out, renders the user a nuisance to himself and to those about him.—Robert E. Peary, *"Secrets of Polar Travel."*

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6-37

Infected Handlers of Food

IN THE examination of a total of 1,072 food handlers in public dining rooms and kitchens in San Francisco, twenty-two were found to be infected with *Endamoeba histolytica*, which causes amebic dysentery. The tests are reported by Margaret Knight Iverson and Herbert G. Johnstone, of the University of California, in the *Journal of the American Medical Association*. Of these twenty-two, eighteen had been born, had lived or visited outside the United States.

The infected persons were compelled to stop work for not less than two weeks and received a course of treatment with carbarsone. Examinations were repeated every fortnight for three months but in every case a cure was effected. However, it was stated that contamination of food by such infected persons rarely happens under ordinary conditions.—S.

Stretching

LUTHER BURBANK counted his own pulse and determined that the heart does one-seventh less work when one is lying down, relaxed, than when one is standing or moving about, so he lay down as often as he could. "Stretching," he said, "is Nature's short cut to relaxation. It rests the muscles, relieves pressure on nerves, loosens up the frame, readjusts the backbone, where most of the nerve channels run, and makes you fill your lungs with good, fresh air. Try stretching, and you will cut down your doctor bills."

In the door between his dining room and kitchen, he had a curtain rod installed which he could just reach from the floor with a little jump. Almost every time he passed through that door, he would hop up, catch the bar, stretch his whole body, then bound down, refreshed and buoyant as a schoolboy. He said it added ten years to his life and fifty per cent to his enjoyment of it.—Wilbur Hall.

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In Which We Answer a Question Often Asked

MANY people who have never visited Battle Creek ask the question: "What is the Battle Creek Sanitarium?"

The answer is that the Battle Creek Sanitarium is primarily an up-to-date, scientific medical institution.

On the staff are fifty physicians, several of them of international reputation. Treatment of nearly two hundred thousand patients for almost every known type of disease over a period of fifty years, has given the Sanitarium a background of knowledge and experience probably surpassed by no other medical institution.

The Sanitarium has brought together under unified control all the resources that modern medical science has to offer in the diagnosis and treatment of disease. To this end no expense has been spared. Members of the staff are always on the alert for new developments and are quick to employ them as soon as they have proved their value.

Experience has shown that there are three distinct types of benefits that medicine can confer upon mankind:

First: Health education—that is, teaching people how to live in order that their bodies may function with maximum efficiency, thereby avoiding disease and premature old age.

Second: Taking bodies that have been abused by improper living and, by corrective measures, restoring damaged parts to normal functioning.

Third: Alleviation of the suffering and extension of the life expectancy of those af-

flicted with incurable diseases, by means of carefully controlled treatment and a program of right living

This calls for many and varied applications of modern medicine. Diet and advanced therapeutic methods constitute a very important part of the treatment, but surgery has its place and is used when necessary. A complete modern hospital is part of the Sanitarium equipment.

To the Battle Creek Sanitarium medical science owes many fundamental discoveries of great importance. Research work is continually in progress. Two scientific laboratories are maintained for the study of nutritional problems and the relations of foods to disease. The X-ray department is recognized as one of the most complete in existence and out of it have come many important advances in technique and treatment.

The program of diagnosis, treatment and health by training that is known as the Battle Creek Idea, has penetrated to the most remote corners of civilization. To the Battle Creek Sanitarium, therefore, come thousands of people each year — from all walks of life and from all parts of the world — with assurance that here they will receive all the benefits that modern medical science has to offer.

Those who desire more detailed information about the Battle Creek Sanitarium and its methods are invited to write for descriptive literature. Address—

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Main Building of The Battle Creek Sanitarium*

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